**Hess’s Law Quiz**

Correct answer gets full marks. Anything else, more work shown = more part marks.

Find the ΔH for the reaction below, given the following reactions and subsequent ΔH values:

½H2(g)  +  ½Cl2(g)  →  HCl(g)

2HCl(g) +  ½O2(g) →  H2O(l) +  Cl2(g)ΔH = 105 kJ

CH2Cl2(l) +  H2(g) +  3/2O 2(g) →  COCl2(g) +  2H2O(l) ΔH = -402.5 kJ

COCl2(g) +  H2O(l) →  CH2Cl2(l) +  O2(g) ΔH = 47.5 kJ

The ∆H of the reaction is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_